23001 Industrial Blvd, Rogers, MN 55374 / 1-866-527-7637
www.motoalliance.com

MOTOALLIANCE WINCH MOUNT

MA11952

Suzuki Vinson

Thank you for purchasing our MotoAlliance winch mount(s). You now own a premium custom winch mount to allow you to use your winch with your ATV. Please note the following instructions and heed all warnings.

- **Please use common sense when operating your ATV.**
- **Read your Winch Operator's Manual and all other Operator Manual's, including warning labels, before operating your ATV.**
- **Be observant of moving parts causing entanglement, use extreme caution!**

SEVERE INJURY OR DEATH MAY RESULT IF YOU ARE NEGLIGENT.

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Please verify that all hardware and parts are included in your package.

Kit Content:

Winch Mount Plate (1)
5/16”-18 x 1” x 2” U-bolts (1/2”PIPE) (2)
5/16-18 Nylock Nuts (6)
3/8-16 Nylock Nuts (2)
5/16” Flat Washer (2)
5/16”-18 x 1” Bolt (2)
5/16” x ¾” Bolt (4)
3/8”-16 x 1” Bolt (2)

MOUNTING INSTRUCTIONS:

***All directions referring to right and left are when the rider is sitting on the ATV.

Use the four 5/16” x ¾” bolts provided to mount the winch to the 4-bolt pattern in the center of the mount plate. Your motor should be on the right side of the vehicle.

INSTALLATION INSTRUCTIONS:

1. Remove the front skid plate and set it aside.(10mm bolts)

2. Lay the winch plate on top of the bottom horizontal frame tube, aligning the u-bolt holes with the vertical frame support tube. Position the large holes over the top front A-arm bolt, level and tighten the nylock nuts.

3. Position the 3/8” bolts in the fairlead holes before installing the winch.

4. Slide the winch into the ATV from the right side with the motor side being inserted first. The winch motor should mount on the right side of the ATV. Viper uses a 4-bolt mount pattern. Slide the 5/16”–18 x 1” mounting bolt with the washer through the universal mount plate and through the winch mount plate. Hand-tighten the 4 nylock nuts. The flat washer will reside on the top to the slotted hole on the universal winch plate.

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5. Now install the fairlead rollers with the 3/8”-16 x 1” (previously insert in mounting holes) hex head bolts provided with the roller towards the front of the machine. Start the nylock nuts. Now that the hardware is started, secure and tighten all of the hardware.

6. Install the winch to the winch plate with the (4) 5/16”-18 x 1” hex head bolts and washer through the slotted hole and tighten the nylocks underneath the winch plate. Make sure to tighten all of the hardware.

7. Work the cable through the fairlead by going to free spool position. Do not attempt free spool with tension on the cable. Hold the drum while going to free spool, as new cable will unspool easily. Attach the cable hook.

ELECTRICAL INSTRUCTIONS:

1. First determine where to install the contactor (control relay). There is no right or wrong place. We recommend a dry place away from sharp or moving suspension parts. It can be hard to find a totally dry place on an ATV but just try to find the best spot. You may mount it in the front, back or under the seat. You may mount it with u-bolts (holes on contactor are metric.) or bolts. We usually install the contactor in the rear storage compartment if possible because it is dry there. When installing the contactor in the storage compartment, you should attach all the wires first, before bolting it down. We also offer an optional side bracket mount. This bracket allows the contactor to hang on the side of square tubing. There is an additional cost associated with this part and you can call us for details or visit our website.

2. We used the factory wires installed for the winch. I found the wire taped to the horizontal cross-member above the winch. And I found contactor side back behind the storage compartment below taillight. Blue = (+) or red on winch and Yellow = (-) or silver on winch. The factory wires matched Blue and Yellow terminal on the contactor. If you don’t use factory wiring then the following applies. Take the long set of red/black power wires and attach the red wire to the winch’s red terminal and the black wire to the silver terminal. Keep the wire away from moving suspension parts. We left wire loose as we went down the upper frame. When fastening any wire where moisture could cause problems put dielectric tune-up grease (Permatex 22058 from NAPA) on all connections. Also if you want extra vibration protection, Napa has plastic split loom tube conduct that can also be installed over the wire after it has been routed through the frame. (Napa #737300, 3/8” split loom) Connecting the wire to the contactor, you will want the red wire attached to the red nut on the

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winch motor to go to the blue terminal on the contactor. (Blue is painted on top of the contactor terminal). The black wire attached to the silver terminal on the winch goes to the yellow terminal on contactor. If you get this wiring backwards this will not damage anything, the control switch on the handlebars will just work in reverse.

3. Next, run the power wires from the battery into the compartment or location you have chosen for your contactor. The red wire goes to the positive terminal on the battery and the red terminal on the contactor. The black wire goes negative terminal on the battery and the black terminal on contactor. We didn't attach the red wire until all the rest of the wiring was complete. **Caution:** It is easier to reverse the polarity at the battery then you would think and that can cause damage to your voltage regulator, contactor, and can start fires. The battery is capable of supplying a lot of current even to a short.

4. The last of the wiring is to mount and wire in the control switch on the handle bars. We wrapped a couple wraps of electrical back tape on the handle bars before we clamped the switch down. Route the control wiring down the vertical wiring harness and join up with the power cable on left side of cowling. Keep the red wire that hangs out near switched 12 volt wire. Route the control wire down to the power wire and follow the power wire back to the contactor location. Fasten the green wire to the green wire on contactor and the black wire to the black wire on the contactor. (The connectors are gender specific and can't be reversed.)

5. The red switch control wire is the next item, which often raises some questions. The red control wire hanging out of the control cable near the switch goes to the switch 12 volts on the ATV. Some ATV's will have an accessory wire provided and it is spelled out in the owner's manual. The wire will be fused for it. The wires can be many different colors. You could also call an your Suzuki Service Center & they will give you the location and color wire for winch control switch 12 volts over the phone. A factory service manual will also have the schematic in it. We found the switch 12 volts by using a 12 volt test light. We poked a hole though the insulation. With the test light clipped to the frame we turned on the key and lit the light. We turn turned off the key and light went out. (Switch 12 volts are defined as 12 volts removed with the key off, as opposed to battery 12 volts that has power all the time. You can always find switch 12 volts on the back side of the ignition switch.) You may obtain a crimp on side tap terminal for taping into insulated wire at an Auto parts store or hardware store. We used the orange wire on the back side of ignition switch. We tape into switch 12 volts with a side tape crimp on connector. Some manufacturers provide a connector to plug into under the front access panel. Usually a crimp on spade connector will mate with it.

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6. Lastly, fasten down the contactor with the bolts provided in the winch box. Make sure the 10 MM terminal nuts are tight on the contactor and wire terminal lugs and not shorting. Double check the green and black control wires on the contactor. They can mate hard, so make sure they are seated. Then, attach the battery wires to the battery. Your winch is operational. With the ignition key on, the relay should click when the handle bar control switch is activated. You should test both halves of the switch. The click is independent of winch powering 12 volts. It will click even if the battery is not wired to the contactor or winch. Wind in excess winch steel cable by carefully guiding it to the spool. Installation technicians are available to answer questions that may arise. **If further assistance is needed please call our toll-free line at 866-527-7637 and ask to speak with our technician.**